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(54) Title: **ENHANCED HIV-1 VACCINES AND METHODS FOR THEIR USE**

(57) Abstract: **ENHANCED HIV-1 VACCINES AND METHODS FOR THEIR USE ABSTRACT** The present invention provides peptides and proteins for use in second generation HIV vaccines and as diagnostic tools in the treatment and control of HIV infection. The antiviral protection shown by compositions of the present invention has not been previously achieved with an HLA epitope-enhanced vaccine. These findings define a critical balance between MHC affinity and receptor crossreactivity required for effective epitope enhancement and also demonstrate construction and efficacy of such a component of a new generation vaccine.

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# INTERNATIONAL SEARCH REPORT

Int application No.

PCT/US04/09617

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61K 39/21  
US CL : 424/188.1, 208.1

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
U.S. : 424/188.1, 208.1

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
USPATFULL, WPIDS, MEDLINE

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	van der BURG, S. H., et al. Identification of a conserved universal Th epitope in HIV-1 reverse transcriptase that is processed and presented to HIV-specific CD4+T cells by at least four unrelated HLA-DR molecules. J. Immunol. 1999, Vol. 162, pages 152-160, particularly page 154.	1-21
Y	US 6,534,483 B1 (BRUNO, M., et al.) 18 March 2003 (18.03.2003), see entire document, particularly columns 2-16.	1-21

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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